



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,236	01/26/2005	Bernt Erik Tagesson	09546-022US1/55531 US SB/	6477
26211 7590 08/21/2008 FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER LEO, LEONARD R	
			ART UNIT 3744	PAPER NUMBER
			MAIL DATE 08/21/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/523,236	Applicant(s) TAGESSON, BERNT ERIK	
	Examiner Leonard R. Leo	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-30,32-41 and 43-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-30,32-41 and 43-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed on May 19, 2008 has been entered. Claims 31 and 42 are cancelled, and claims 26-30, 32-41 and 43-50 are pending.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 26-28, 32-33, 36 and 38 are rejected on the ground of nonstatutory double patenting over claim 13 of U. S. Patent No. 7,191,821 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

A plate heat exchanger comprising a number of heat exchanger plates, a gasket is arranged between each pair of adjacent heat exchanger plates for sealing an interspace between adjacent plates wherein the gasket includes a curable polymer material composed of two components (column 5, lines 24-29, a catalyst and activator mixed together) which is applied and cured on one of the heat exchanger plates in each pair.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Regarding claims 27-28, the patent (column 5, lines 22-24) discloses liquid silicon rubber.

Regarding claims 32-33, the patent (column 5, lines 11-14) discloses a mixture viscosity of 300 to 800 Pas.

Regarding claim 36, Figure 4 of the patent discloses an edge area outside of the border area.

Claims 29-30, 34-37, 39-41 and 43-50 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 13 and 22 of U.S. Patent No. 7,191,821 in view of Sumitomo et al.

The patent claims all the claimed limitations of the application except the gasket having a lower planar surface.

Sumitomo et al (Figure 1) discloses a heat exchanger comprising a plurality of plates 1, each having a gasket 3 received in a border area 4 having a lower planar surface for the purpose of positively receiving the gasket to define the heat transfer area.

Since the patent and Sumitomo et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Sumitomo et al would have been recognized in the pertinent art of the patent.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the patent a border area having a lower planar surface to receive the gasket for the purpose of positively receiving the gasket to define the heat transfer area as recognized by Sumitomo et al.

Regarding claim 30, Figure 2 of Sumitomo et al discloses the gasket 3 having a softly curved convex shaped upper surface.

Regarding claims 34-35, Figure 2 of Sumitomo et al discloses the border area 4 having a bottom surface with first and second angled side surfaces.

Regarding claims 36-37, Figure 2 of Sumitomo et al discloses an edge area (left side) outside of the border area 4.

Regarding claim 39, Sumitomo et al discloses border area 4. Office Notice is taken of pressed heat transfer plates with portholes formed by cutting and the employment of the technique would require only routine skill in the art. It would have been obvious to one of ordinary skill in the art to apply a known technique to a known device ready for improvement to yield predictable results. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742, 82 USPQ2d 1385, 1396 (2007)

Regarding claims 40-41, the patent (column 5, lines 22-24) discloses liquid silicon rubber.

Regarding claims 43-44, the patent (column 5, lines 11-14) discloses a mixture viscosity of 300 to 800 Pas.

Regarding claims 45-46, as noted above, the patent (column 5, lines 24-29) discloses an catalyst and activator mixed together. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ any mixture percentage composition, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been obvious to one of ordinary skill in the art to try - choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742, 82 USPQ2d 1385, 1396 (2007).

Regarding claim 47, the patent (column 5, lines 20-22) discloses a robot may apply the gasket. Official Notice is taken of nozzles to supply a source to a target from a high pressure side to a low pressure side.

Regarding claims 48-50, the patent (column 5, lines 32-37) discloses a curing temperature of 150 to 250C for at least 30 minutes.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26-28, 32-33, 38 and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sears in view of Nakamura et al.

Sears (Figures 24-28, column 9, lines 25-29) discloses all the claimed limitations except the curable polymer composed of two components.

Nakamura et al discloses a liquid silicone rubber composition comprising five components to form the polymer material for the purpose of achieving advantageous physical properties.

Since Sears and Nakamura et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Nakamura et al would have been recognized in the pertinent art of Sears.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Sears two components to form the polymer material for the purpose of achieving advantageous physical properties as recognized by Nakamura et al.

Regarding claims 27-28, the "liquid sealing material, such as silicone" as disclosed by Sears is read as "Liquid Silicon Rubber."

Regarding claims 32-33 and 43-44, the specific viscosity of the composition is considered to be an obvious design choice. One of ordinary skill in the art would employ any desired viscosity to control the manufacturability of the composition.

Regarding claims 45-46, Nakamura et al discloses Ingredient (D) as a crosslinking agent (i.e. activator) and Ingredient (E) as a catalyst. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ any mixture percentage composition, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been obvious to one of ordinary skill in the art to try -

choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742, 82 USPQ2d 1385, 1396 (2007).

Claims 29-30, 34-37, 39-41 and 47 -50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sears in view of Nakamura et al as applied to claims 26-28, 32-33, 38 and 43-46 above, and further in view of Sumitomo et al.

The combined teachings of Sears and Nakamura et al lacks the gasket having a lower planar surface.

Sumitomo et al (Figure 1) discloses a heat exchanger comprising a plurality of plates 1, each having a gasket 3 received in a border area 4 having a lower planar surface for the purpose of positively receiving the gasket to define the heat transfer area.

Since Sears and Sumitomo et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Sumitomo et al would have been recognized in the pertinent art of Sears.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Sears a border area having a lower planar surface to receive the gasket for the purpose of positively receiving the gasket to define the heat transfer area as recognized by Sumitomo et al.

Regarding claim 30, Figure 2 of Sumitomo et al discloses the gasket 3 having a softly curved convex shaped upper surface.

Regarding claims 34-35, Figure 2 of Sumitomo et al discloses the border area 4 having a bottom surface with first and second angled side surfaces.

Regarding claims 36-37, Figure 2 of Sumitomo et al discloses an edge area (left side) outside of the border area 4.

Regarding claim 39, Sumitomo et al discloses border area 4. Official Notice is taken of pressed heat transfer plates with portholes formed by cutting and the employment of the technique would require only routine skill in the art. It would have been obvious to one of ordinary skill in the art to apply a known technique to a known device ready for improvement to yield predictable results. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742, 82 USPQ2d 1385, 1396 (2007)

Regarding claims 40-41, the "liquid sealing material, such as silicone" as disclosed by Sears is read as "Liquid Silicon Rubber."

Regarding claim 47, Official Notice is taken of industrial robots with nozzles to apply liquid materials in a faster, cheaper and consistent manner.

Regarding claim 48, Sears (column 9, lines 36-41) discloses curing by heating.

Regarding claims 49-50, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a known curable polymer with advantageous manufacturability, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Response to Arguments

The rejection under 35 U.S.C. 112, second paragraph, is withdrawn in view of the claim amendment.

The double patenting rejection is maintained. The rejection is deemed correct for lack of any arguments by applicant.

Applicant's arguments have been fully considered but they are not persuasive.

Applicant's remarks are not commensurate in scope with the claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The transitional term "comprising" is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., *Mars Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004).

With respect to applicant's remarks directed to Sumitomo et al, the secondary reference teaches one of ordinary skill in the art to employ a gasket receiving groove to facilitate a liquid-tight seal between heat exchanger plates. In the device of Sears, the groove would provide an enhanced seal, should the gasket move after assembly during operation.

With respect to applicant's remarks directed to Nakamura et al, the secondary reference is pertinent to the heat exchanger art to facilitate manufacture and assembly of heat exchanger plates requiring a seal as in Sears.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard R. Leo whose telephone number is (571) 272-4916. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Application/Control Number:
10/523,236
Art Unit: 3744

Page 11

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/ LEONARD R. LEO /
PRIMARY EXAMINER
ART UNIT 3744

August 23, 2008